

REMARKS

The Examiner has rejected all pending claims 1-7, 11, 13, 19, 22-25, 29-38, 42, 44, 50, 53-56, 60, 61, and 63-66. Claims 1, 3-7, 11, 13, 22-24, 29, 30, 34-38, 42, 44, 50, 53-56, 60, 61, 63, and 64 have been amended. Claims 2, 19, 25, 31, 33, 65, and 66 have been cancelled. Claims 67-93 have been added. Applicant respectfully requests reconsideration of pending claims 1, 3-7, 11, 13, 22-24, 29, 30, 34-38, 42, 44, 50, 53-56, 60, 61, 63, and 64 in light of the following Remarks.

35 U.S.C. 112, second paragraph

Claims 1-7, 11, 13, 19, 22-25, 29-38, 42, 44, 50, 53-56, 60, 61, and 63-66 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant traverses.

The Examiner rejected each of claims 1, 2, 3, 7, 19, 32, 33, 34, 38, and 50 as being indefinite and unclear in context for the use of the term “automated.” Applicant has amended claim 1 to recite a control system that is “configured to provide automatic synchronized operation of the two wing control surfaces via a control mechanism.” Furthermore, to emphasize that the control system is automated, the claims have been amended to recite an “autopilot control system.” Support for the term “autopilot control system” can be found at several points in the specification, for example at page 9, line 6.

Accordingly, Applicant respectfully requests that the § 112, second paragraph, rejection of claims 1, 2, 3, 7, 19, 32, 33, 34, 38, and 50 be withdrawn.

Claim 1 was further rejected for being indefinite for the phrase “surfaces spaced apart along a main body section of the craft.” While Applicant disagrees with Examiner’s assessment of the recitation as being indefinite, claim 1 has been amended to recite that the wing control surfaces are “spaced apart at different points along a main body section of the craft.” (Emphasis Added). Accordingly, Applicant respectfully requests that the § 112, second paragraph, rejection of claim 1 be withdrawn.

The Examiner rejected claim 2 stating that “with control to a predetermined angle of attack to maintain continuously at zero value under sustained manoeuvre through to target intercept at zero grazing incidence” is indefinite. Portions of claim 2 have been incorporated in revised claim 1, and their meaning should be clear from the comments provided below regarding the distinguishing features of the invention over the cited documents. Claim 2 has been cancelled. Accordingly, Applicant respectfully requests that the § 112, second paragraph, rejection of claim 2 be withdrawn.

The Examiner rejected each of claims 1-3 for the recitation of “automated synchronized operation,” for being indefinite and unclear in context. Applicant contends that the recitation is neither unclear nor indefinite, since the claims clearly state that synchronized operation refers to control of the wing control surfaces, and automated operation is at least implied in relation to the craft itself. However, for the sake of expeditious prosecution, claim 1 has been amended to recite that the autopilot control system is “configured to provide automatic synchronized operation of the two wing control surfaces via a control mechanism.” Accordingly, Applicant respectfully requests that the § 112, second paragraph, rejection of claims 1-3 be withdrawn.

The Examiner rejected the claim 3 recitation of “under the action of a control routine” and the claim 4 recitation of “under a control routine involving a soft actuation mechanism” as being indefinite and unclear. The term “soft control” is disclosed in the specification as relating to the gearing between the two wing surfaces being variable. The phrase “soft actuation mechanism” has been replaced with wording in revised claim 4 stating that “independent actuation of each wing control surface comprises a variable gearing actuation mechanism.” Accordingly, Applicant respectfully requests that the § 112, second paragraph, rejection of claims 3 and 4 be withdrawn.

The Examiner rejected claims 13 and 44 as being indefinite for the use of parenthetical matter (i.e., words in brackets). The parenthetical matter has been removed. Accordingly, Applicant respectfully requests that the § 112, second paragraph, rejection of claims 13 and 34 be withdrawn.

The Examiner rejected claims 30 and 61 for use of the shorthand term “and/or.” Applicant traverses. Applicant submits that the term “and/or” is a known term meaning one of the conjunctive or disjunctive and is readily understood by one of ordinary skill in the art. The term is intended to mean that the features either side can be used either in isolation or in combination, i.e. in the form of a non-exclusive Boolean OR logical operator. Additionally, the Examiner has not cited any provision of the MPEP or any relevant authority stating that the term “and/or” is unacceptable. Accordingly, Applicant respectfully requests that the § 112, second paragraph, rejection of claims 30 and 61 be withdrawn.

The Examiner rejected dependent claims 33-38, 42, 44, 50, 53-56, 60, 61, 63, and 64 as being unclear in that they depend from cancelled claim 18. Claims 33-38, 42, 44,

50, 53-56, 60, 61, 63, and 64 have been amended to properly depend from claim 32. Accordingly, Applicant respectfully requests that the § 112, second paragraph, rejection of claims 33-38, 42, 44, 50, 53-56, 60, 61, 63, and 64 be withdrawn.

The Examiner rejected claims 2-7, 11, 13, 19, 22-25, and 29-31 as being unclear at least in that they depend from unclear independent claim 1. As stated above, claim 1 has been amended and Applicant submits claim 1 is clear. Accordingly, Applicant respectfully requests that the § 112, second paragraph, rejection of claims 2-7, 11, 13, 19, 22-25, and 29-31 be withdrawn.

35 U.S.C. 101

The Examiner rejected claims 63-66 under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The Examiner states that claims 63 and 64 are directed to non-statutory subject matter under 35 U.S.C. 101 in that they attempt to claim a “computer program” product apart from that “computer program” residing on a computer-readable medium. Accordingly, Applicant has amended claims 63 and 64 to recite a “computer program residing on a computer-readable medium.” As such, Applicant respectfully requests that the § 101 rejection of claims 63 and 64 to be withdrawn.

Claims 65 and 66 have been cancelled.

35 U.S.C. 102(b)

Claims 1, 23, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Schroeder ('331) or Schroeder ('830). The Examiner stated that claim 1 is anticipated by

either of the applied references in that the two wing control surfaces are operated in a synchronized manner as claimed. Applicant traverses.

Claim 1 has been amended to recite “wherein the autopilot control system is configured to manoeuvre an axis of the main body section relative to the flight path velocity vector to minimize an angle of attack of the craft during a sustained manoeuvre towards a target intercept at zero angle of incidence.” Accordingly, the control system of claim 1 maintains a sightline on a target by manoeuvring the main body section axis relative to a flight path velocity vector to minimise an angle of attack of the craft during a sustained manoeuvre. Schroeder does not include this limitation. In contrast, Schroeder’s emphasis is solely on manoeuvre in which the angle of attack is a by-product and is not under control with the aim of achieving a missile controlled directional look onto target. This is illustrated at column 4, line 66 to column 5, line 3 of Schroeder (‘331), which states that “the intuitive approach to improving a missile’s dynamic capability using a dual control strategy suggests that the command signals to fore and aft control devices be scaled in such a manner as to provide the desired acceleration.” As such, neither Schroeder (‘331) nor Schroeder (‘830) disclose all the limitations of claim 1. Thus, Applicant respectfully requests the withdrawal of the rejection of claim 1 under § 102(b).

Additionally, Applicant asserts that claims 3-7, 11, 13, 22-24, 29, and 30 are patentable as being dependent from an allowable base claim. Thus, Applicant respectfully requests the withdrawal of the rejection of claims 3-7, 11, 13, 22-24, 29, and 30 under § 102(b) as well.

35 U.S.C. 103(a)

Claims 22 and 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Schroeder ('331) or Schroeder ('830). Claims 22 and 24 depend from allowable claim 1. Accordingly, Applicant respectfully requests the withdrawal of the rejection of claims 22 and 24 under § 103(a) as well.

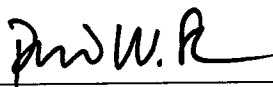
The Examiner stated that due to lack of clarity of all the pending claims, it is not possible to indicate allowable subject matter. In light of the above amendments and comments, Applicant submits that each of the pending claims is in condition for allowance.

CONCLUSION

In view of the above remarks and amendments, Applicant respectfully submits that all pending claims properly set forth that which Applicant regards as its invention and are allowable over the cited prior art. Accordingly, Applicant respectfully requests allowance of the pending claims. The Examiner is invited to telephone the undersigned at the Examiner's convenience, if that would help further prosecution of the subject Application. Applicant authorizes and respectfully requests that any fees due be charged to Deposit Account No. 19-2814.

Respectfully submitted,

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By: 
David Wade Schnell
Registration No. 53,563

SNELL & WILMER L.L.P.

One Arizona Center

400 East Van Buren

Phoenix, Arizona 85004-2202

Tel (602) 382-6226

Fax (602) 382-6070

Email: wschnell@swlaw.com